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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,546	10/07/2003	Alan E. Stein	ITW7510.074	2545
33647	7590	11/09/2006	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW)			KERNS, KEVIN P	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	
			1725	

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/605,546

**Applicant(s)**

STEIN ET AL.

**Examiner**

Kevin P. Kerns

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006 and 28 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 and 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-25, 27-35, 37-40, 44, 45, 48-50, and 54 of copending Application No. 10/708,657 (US 2005/0205542).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims include at least the following common features: a welding torch configured to present an electrode to a weld; an enclosure (welder housing); a power conditioner (power source/supply) disposed within the enclosure; a cooling system having a coolant tank and a spout disposed within the enclosure to circulate coolant through the welding torch/component via coolant hoses (providing supply and return paths for the coolant); a controller operable to control the cooling system and power conditioner; a means to automatically commence coolant circulation through the torch when the electrode is presented to the weld; a means to maintain

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coolant circulation until expiration of a specific time period and until a temperature falls below a certain value; a heat exchanger and water pump assembly; a coolant pressure sensor; and at least one check valve integrated with the cooling system. One of ordinary skill in the art would have recognized that the additional features present for the welding-type system of copending Application No. 10/708,657 would selectively be present on the welder of the present application, as open-ended "comprising" language is present in the current application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Prunier (FR 2 536 320) or Behnke et al. (US 2,510,207) in view of Bailey (US 5,266,778).

Prunier discloses an arc welding machine that includes a refrigeration unit for torch cooling, in which the welding machine further includes a welding torch configured to present an electrode to a weld; an enclosure (welder housing) with a base plate, side plates, end plates, and a top cover; a power conditioner (power source/supply) disposed within the enclosure; a cooling system having a coolant tank and a spout disposed within the enclosure to circulate coolant through the welding torch/component via coolant hoses (providing supply and return paths for the coolant); a controller operable to control the cooling system and power conditioner; a means to automatically commence coolant circulation through the torch when the electrode is presented to the weld; a means to maintain and terminate coolant circulation; a heat exchanger and water pump assembly; and at least one check valve integrated with the cooling system (abstract; translated French text of specification and claims in the paragraph bridging pages 3 and 4, the paragraph bridging pages 6 and 7, the detailed description on pages 7-11, the last two paragraphs on page 11 and bridging to page 12, claims 5 and 6; and Figure).

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Also, Behnke et al. disclose a fluid control system for inert gas blanketed arc welding, in which the welding machine further includes a welding torch T with a cooling jacket J configured to present an electrode E to a workpiece to be welded W; a power conditioner (power source/supply); a cooling system having a coolant tank (manifold) and a spout operable to circulate coolant through the welding torch/component via coolant hoses (providing supply and return paths for the coolant); a controller operable to control the cooling system and power conditioner; a means to automatically commence coolant circulation through the torch when the electrode is presented to the weld; a means to maintain and terminate coolant circulation; a heat exchanger and water pump assembly; and at least one check valve integrated with the cooling system (column 1, line 1 through column 3, line 61; and Figure).

Neither Prunier nor Behnke et al. specifically discloses a means to maintain coolant circulation until expiration of a specific time period and/or until a temperature falls below a certain value (i.e. threshold, predetermined value, and/or certain set point after deactivation of the welding machine), in which one or more temperature sensors in cooperation with a dynamic control means would be required.

However, Bailey discloses a dynamic temperature control for use with a heating/cooling system having a fluid reservoir 28 including at least one temperature sensor (fluid temperature sensor 30 and remote temperature sensor 32), in which the dynamic temperature control 10 (see Figure 1) includes logic circuitry to receive temperature input signals from a control panel and at least one temperature sensor (30,32) to control the operating temperature of the fluid circulated through the fluid



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circulating system as a measure of fluid pressure or flow, and is operable to receive a temperature set point signal (column 3, lines 3-14) corresponding to a desired temperature set point from a temperature set point control 22, such that the temperature sensors in cooperation with a dynamic control means are advantageous for providing accurate, dynamic control of fluid temperature until expiration of a specific time period and/or until a temperature falls below a predetermined certain value, or set point (abstract; column 1, lines 9-11; column 2, lines 15-68; column 3, lines 1-14 and 55-68; column 4, lines 1-39 and 67-68; column 5, lines 1-2 and 40-47; and Figures 1-3).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify either of the arc welding machines disclosed individually by Prunier and Behnke et al., by using a temperature sensor in cooperation with a control means to maintain coolant circulation while establishing a desired temperature set point, as taught by Bailey, in order to provide accurate, dynamic control of fluid temperature until expiration of a specific time period and/or until a temperature falls below a predetermined certain value, or set point (Bailey; abstract; column 1, lines 9-11; column 2, lines 15-68; and column 3, lines 1-14).

### ***Response to Arguments***

6. The examiner acknowledges the applicants' amendment/responses received by the USPTO on July 19, 2006 and August 28, 2006. Although the provisional double patenting rejections in view of 10/604,459 have been withdrawn due to the fact that it is no longer pending (notice of abandonment mailed on March 14, 2006), the provisional

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double patenting rejections in view of copending Application No. 10/708,657 remain (see above section 2). The applicants have added new claim 24. Claims 1-24 are currently under consideration in the application.

7. Applicants' arguments filed July 19, 2006 have been fully considered but they are not persuasive.

With regard to the applicants' remarks/arguments on pages 6-8 of the amendment dated July 19, 2006, the applicants' major argument relies upon their assertions on pages 7 and 8 that the Bailey reference is allegedly not properly combined (i.e. allegedly "teaches away") under 35 USC 103(a) with either of the Prunier and Behnke et al. references (both references of which are properly and nearly equally applicable -- despite the applicants' statement that refers to MPEP 706.02 in the last paragraph of page 6). First, the primary references (Prunier and Behnke et al.) disclose the features of the welders with coolant circulation systems set forth in the claims, but both references fail to specifically disclose a means to maintain coolant circulation until expiration of a specific time period and/or until a temperature falls below a certain value, in which one or more temperature sensors in cooperation with a dynamic control means would be required. Second, it is noted that the applicants have not provided specific arguments against the teachings of Prunier and Behnke et al. (both of which set forth welders having coolant circulation), but their arguments have been provided only to attack the alleged deficiencies of the Bailey reference. In their arguments against Bailey, the applicants have not appeared to have taken a view of what one of ordinary



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skill in the art would have known about the teachings of the welders having coolant circulation systems disclosed by Prunier and Behnke et al. For example, the applicants' arguments throughout page 7 state that the system disclosed by Bailey is used for either heating or cooling (i.e. used as a "thermostat" with a particular set point for temperature regulation) and is not in cooperation with "selective" circulation, as such features of the coolant circulation are already disclosed in Prunier and Behnke et al.

The examiner respectfully disagrees with the applicants' statement that Bailey "teaches away" from their invention since that system would also be used for heating, as the temperature sensors (fluid sensor 30 and remote sensor 32) cooperate with dynamic temperature control 10 (see Figure 1) to be used for cooling the system as well.

Furthermore, although the applicants state that their present invention would be "remarkably less expensive than the system of Bailey" (3<sup>rd</sup> paragraph of page 8), thus implying that the Bailey system is not particularly appropriate for use with a welding system, these statements are not pertinent to the limitations set forth in the applicants' claims. As a result, Bailey does not "teach away" from either of the Prunier and Behnke et al. references. As shown in above section 5, Bailey includes temperature sensors and a dynamic control means, and is thus applied to remedy the deficiencies of Prunier and Behnke et al., for the purpose of providing accurate, dynamic control of fluid temperature until expiration of a specific time period and/or until a temperature falls below a predetermined certain value, or set point. In response to applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

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See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 11/4/06*  
Primary Examiner  
Art Unit 1725

*KPK*  
kpk

November 4, 2006